

A large, cylindrical industrial waste drum is shown in a factory setting, surrounded by a complex metal frame. The drum is light-colored and appears to be undergoing a process. The background shows industrial structures and a bright light source.

Cementation of liquid residues

In a cementation plant, liquid residues, such as ion exchange resins or vaporizer concentrates, can be bound within a cement matrix inside a waste drum.



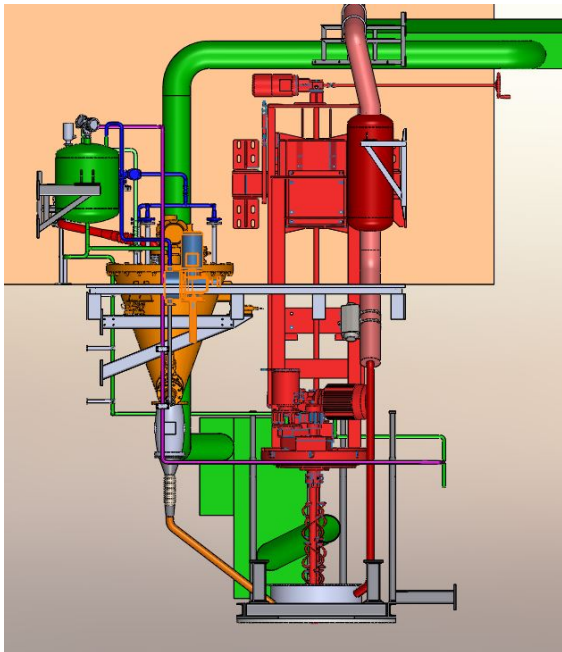
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The liquid residues are placed in a waste drum and mixed with cement and water. An in-drum mixer is used to obtain a homogeneous distribution of the components.

For the exact dosage, the waste is filled into the in-drum mixer from a reservoir above the drum through a funnel.

The ion exchange resins are transported in water and are dewatered before being filled into the drum. This is done, for example, by using a conical dryer. This process ensures that the quantity of resins per drum is precisely dosed and adjusted to the required amount of liquid that is to be cemented.

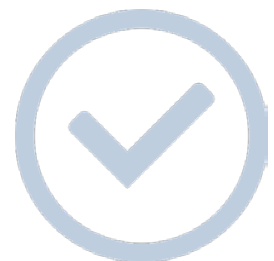


Components of the cementation plant

- Reservoirs for liquid residues, water and cement
- Drainage unit
- Filling funnel with level measurement
- In-drum mixer
- Feed devices and drives for the mixer
- Lifting devices for the drum
- Splash guard
- Pipes, pumps and valves
- Electrical, control and measurement technology
- Plant control and monitoring

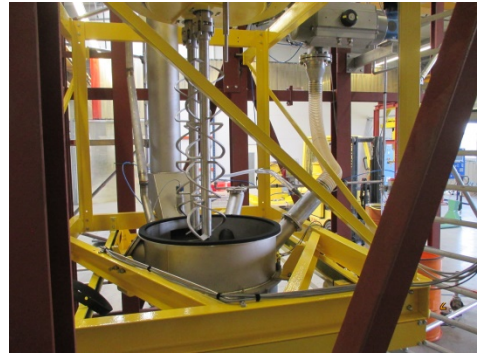
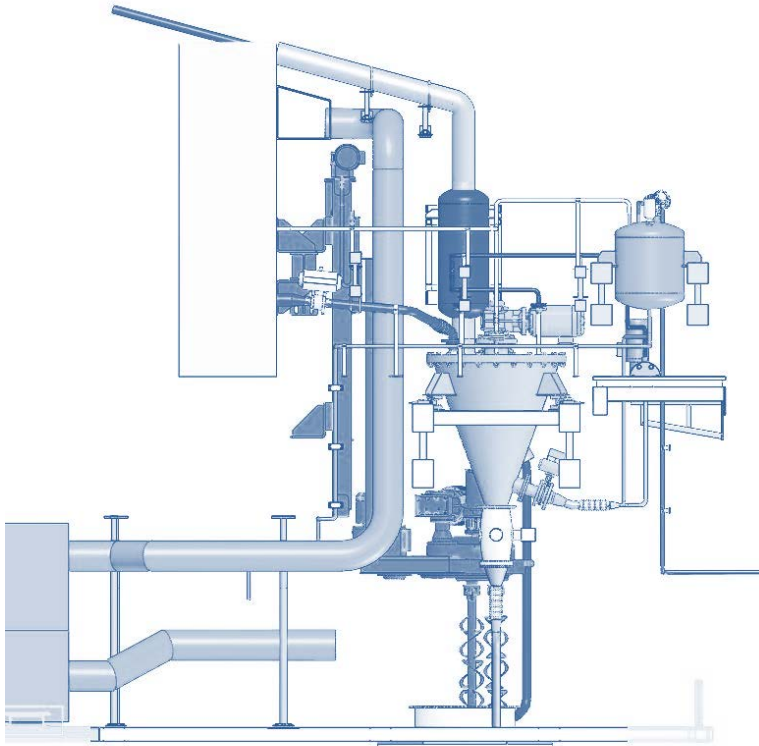
Scope of services

- Concept, design and licensing planning
- Basic and detail engineering including 3D planning
- Design and manufacturing planning
- Material procurement
- Manufacturing, delivery and assembly
- Commissioning and staff training
- Quality assurance and final documentation



Additional equipment/design

Transport trolleys, or roller conveyors or lifting devices for the waste drums



References

Refurbishment of the cementation plant including supply of the waste dosing equipment and the in-drum mixer at the Qinshan Nuclear Power Plant, China



Siempelkamp
NIS Ingenieurgesellschaft mbH
Industriestrasse 13
63755 Alzenau

Tel: +49 6023 40693-0
Fax: +49 6023 40639-970
nis.alzenau@siempelkamp-nis.com

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